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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,816	06/20/2003	Gena S. Whitney	D0251 NP	5150

23914 7590 08/01/2006

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EXAMINER	
LI, RUIXIANG	

ART UNIT	PAPER NUMBER
1646	

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/600,816	WHITNEY ET AL.	
	Examiner	Art Unit	
	Ruixiang Li	1646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *35-44* is/are pending in the application.

4a) Of the above claim(s) *37 and 39-44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35,36 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/22/06, 7/1/05, 12/2/04,
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Sequence alignment*.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II, claim 38, drawn to a method of diagnosing the presence of breast tumor comprising measuring RNA that encodes the polypeptide of SEQ ID NO: 3, in the reply filed on 05/22006 is acknowledged. Claims 35 and 36 are treated as linking claims. Claims 37, and 39-44 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Information Disclosure Statement

2.The information disclosure statements filed on 05/22/2006, 07/01/2005, and 01/22/2004 have been considered by the Examiner and a signed copy of form PTO-1449 is attached to the office action.

Drawings

3. The drawings filed on 06/03/2003 are accepted by the Examiner.

Objection to Title

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections—35 USC § 112, 1st paragraph

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 35, 36, and 38 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of diagnosing breast cancer in a sample by determining the expression level of RNA encoding the polypeptide of SEQ ID NO: 3 comprising specific hybridizing between said RNA to the complementary sequence of SEQ ID NO: 2 or its coding sequence, does not reasonably provide enablement for the instantly claimed method comprising hybridizing between said RNA to the complementary sequence of a nucleic acid *comprising* a fragment of SEQ ID NO: 2, a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 3 or a fragment thereof. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The factors that are considered when determining whether a disclosure satisfies enablement requirement include: (i) the quantity of experimentation necessary; (ii) the amount of direction or guidance presented; (iii) the existence of working examples; (iv) the nature of the invention; (v) the state of the prior art; (vi) the relative skill of those in the art; (vii) the predictability or unpredictability of the art; and (viii) the breadth of the claims. *Ex Parte Forman*, 230 USPQ 546 (Bd Pat. App. & Int. 1986); *In re Wands*, 858 F. 2d 731, 8 USPQ 2d 1400 (Fed. Cir. 1988).

The linking claims 35 and 36 are drawn to a method of diagnosing the presence of a tumor or predisposition to a tumor in a sample comprising the expression level of RNA encoding a polypeptide comprising the sequence of amino acids 2 to 357 of SEQ ID NO: 3 in a normal tissue sample and in a test tissue sample by measuring RNA of said polypeptide; and comparing said expression level of said polypeptide from said test tissue sample with said expression level of said polypeptide from said normal test sample; wherein an elevated expression level of said polypeptide in said test tissue sample relative to the expression level of said polypeptide in said normal sample is indicative of the presence of a tumor or a predisposition to a tumor. Claim 38 limits the tumor to be a breast tumor.

The claims are broad and are drawn to a method of diagnosing breast cancer using a genus of nucleic acids. While providing sufficient guidance and/or working examples on how to determine the expression level of mRNA encoding the polypeptide of SEQ ID NO: 3 in various normal tissues (Fig. 5) and tumor tissues (breast, stomach tumors, and testicular tumors) (see, e.g., Example 11, Fig. 16-18), using quantitative PCR analysis and specific primers and probe (page 213), the specification fails to provide sufficient guidance/direction or working examples on how to diagnose breast cancer by hybridizing mRNA in a breast tumor sample with a genus of nucleic acids, including a complementary sequence of a nucleic acid *comprising* a fragment of SEQ ID NO: 2, a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 3 or a fragment thereof. Thus, use of a complementary sequence of these nucleic acids in the measurement of mRNA level by hybridization

may measure an mRNA that is distinct from the present mRNA. The state of the art is such that determining the specificity of hybridization is empirical by nature and the effect of mismatches is unpredictable, as taught by Wallace et al. (Methods Enzymol. 152:432-443, 1987) and Sambrook et al. (Molecular Cloning, A Laboratory Manual, 2nd Edition, 1989, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, page 11.47).

The prior art (see, e.g., U.S. Patent No. 6812339; U.S. Patent Application Publication No. 20030113798A1) teaches an isolated nucleic acid molecule that is 100% identical to SEQ ID NO: 2 and encodes a polypeptide that is 100% identical to SEQ ID NO: 3 of the present invention (see attached sequence alignment). Veiby et al. (U.S. Pub. No. US2003/0068636 A1, April 10, 2003; 102(e) date: 06/21/2001) teach a diagnostic method of assessing whether a patient is afflicted with breast cancer comprising determining the expression level of RNA encoding the polypeptide of SEQ ID NO: 2 (see sequence alignment). However, none of the prior art teaches diagnosing breast cancer by hybridizing mRNA in a breast tumor sample with a complementary sequence of a nucleic acid *comprising* a fragment of SEQ ID NO: 2, a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 3 or a fragment thereof.

While an artisan has a high level of skill in determining expression profile of an mRNA in normal tissues and tumor samples and diagnosing tumors, such as breast cancer, the recited use of a genus of nucleic acids in the claimed methods would

require an artisan to carry out undue experimentation to practice the claimed invention.

Accordingly, in view of the factors discussed above, it would require undue experimentation for one skilled in the art to use the invention commensurate in scope with these claims.

Claim Rejections 35 USC § 112, 2nd paragraph

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 35, 36, and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 35 is indefinite because it, in part b), recites "said expression level of said polypeptide". It is clear from part a) of the claim that the expression level of RNA, not the expression level of polypeptide, is determined.

Claims 36 and 38 are rejected as dependent claims from claim 35.

Claim Rejections—35 USC § 102(e)

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 35, 36, and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Veiby et al. (U.S. Pub. No. US2003/0068636 A1, April 10, 2003; 102(e) date: 06/21/2001).

Veiby et al. teach a nucleic acid marker (SEQ ID NO: 59) for breast cancer (see Table 2) that comprises the coding sequence of SEQ ID NO: 2 of the present invention and encodes a protein (SEQ ID NO: 60) that is 100% identical to the polypeptide of SEQ ID NO: 3 of the present invention (see attached sequence alignment). Veiby et al. teach a diagnostic method of assessing whether a patient is afflicted with breast cancer comprising determining the level of expression of a marker of the invention in a patient sample and the normal level of expression of the marker in a control non-cancerous breast sample. A significantly higher level of expression of the nucleic acid marker in the patient sample as compared to the normal level is an indication that the patient is afflicted with breast cancer ([0020] to [0023]). Veiby et al. further teach that expression of a nucleic acid marker can be assessed by preparing mRNA/cDNA from cells in a patient sample, and by hybridizing the mRNA/cDNA with a reference polynucleotide which is a complement of a marker nucleic acid, or a fragment thereof ([0122]). Thus, the teachings of Veiby et al. meet the limitations of claims 35, 36, and 38.

Conclusion

11. No claims are allowed.

Advisory Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruixiang Li whose telephone number is (571) 272-0875. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol, can be reached on (571) 272-0835. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, please contact the Electronic Business Center (EBC) at the toll-free phone number 866-217-9197.

Ruixiang Li

Ruixiang Li, Ph.D.
Primary Examiner
July 29, 2006

RUIXIANG LI, PH.D.
PRIMARY EXAMINER

-continued

```
Val Asp Cys Tyr Val Glu Asp Pro Gln Gly Asn Thr Ile Tyr Arg Glu
65                  70                  75                  80

Thr Lys Lys Gln Tyr Asp Ser Phe Thr Tyr Arg Ala Glu Val Lys Gly
                85                  90                  95

Val Tyr Gln Phe Cys Phe Ser Asn Glu Phe Ser Thr Phe Ser His Lys
            100                 105                 110

Thr Val Tyr Phe Asp Phe Gln Val Gly Asp Glu Pro Pro Ile Leu Pro
        115                 120                 125

Asp Met Gly Asn Arg Val Thr Ala Leu Thr Gln Met Glu Ser Ala Cys
    130                 135                 140

Val Thr Ile His Glu Ala Leu Lys Thr Val Ile Asp Ser Gln Thr His
145                 150                 155                 160

Tyr Arg Leu Arg Glu Ala Gln Asp Arg Ala Arg Ala Glu Asp Leu Asn
                165                 170                 175

Ser Arg Val Ser Tyr Trp Ser Val Gly Glu Thr Ile Ala Leu Phe Val
            180                 185                 190

Val Ser Phe Ser Gln Val Leu Leu Leu Lys Ser Phe Phe Thr Glu Lys
        195                 200                 205

Arg Pro Ile Ser Arg Ala Val His Ser
    210                 215
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<210> SEQ ID NO 59
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<212> TYPE: DNA
<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 59

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cctgatggtt gccgcaatgg cctgaaatcc aagtactaca gactttgtga taaggctgaa    180

gcttggggca tcgtcctaga aacggtggcc acagccgggg ttgtgacctc ggtggccttc    240

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cctactcagt ttctcttcct cctgggtgtg ttgggcatct ttggcctcac cttcgccttc    360

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tccatctgct tctcctgcct gctggctcat gctgtcagtc tgaccaagct cgtccggggg    480

aggaagcccc tttccctgtt ggtgattctg ggtctggccg tgggcttcag cctagtccag    540

gatgttatcg ctattgaata tattgtcctg accatgaata ggaccaacgt caatgtcttt    600

tctgagcttt ccgctcctcg tcgcaatgaa gactttgtcc tcctgctcac ctacgtcctc    660

ttcttgatgg cgctgacctt cctcatgtcc tccttcacct tctgtggttc cttcacgggc    720

tggaagagac atggggccca catctacctc acgatgctcc tctccattgc catctgggtg    780

gcctggatca ccctgctcat gcttcctgac tttgaccgca ggtgggatga caccatcctc    840

agctccgcct tggctgccaa tggctgggtg ttcctgttgg cttatgttag tcccgagttt    900

tggctgctca caaagcaacg aaaccccatg gattatcctg ttgaggatgc tttctgtaaa    960

cctcaactcg tgaagaagag ctatggtgtg gagaacagag cctactctca agaggaaatc   1020

actcaaggtt ttgaagagac aggggacacg ctctatgccc cctattccac acattttcag   1080

ctgcagaacc agcctcccca aaaggaattc tccatcccac gggcccacgc ttggccgagc   1140
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ccttacaaag actatgaagt aaagaaagag ggcagctaac tctgtcctga agagtgggac   1200

aaatgcagcc gggcggcaga tctagcggga gctcaaaggg atgtgggcga aatctgagtc   1260

ttctgagaaa actgtacaag acactacggg aacagtttgc ctccctccca gcctcaacca   1320

caattcttcc atgctggggc tgatgtgggc tagtaagact ccagttctta gaggcgctgt   1380

agtatttttt ttttttgtc tcatcctttg gatacttctt ttaagtggga gtctcaggca   1440

actcaagttt agacccttac tcttttgtt tgtttttga aacaggatct tgctctgtca   1500

cccaggcttg agtgcagtgg tgcgatcaca gcccagtgca gcctcgacca cctgtgctca   1560

agcaatcctc ccatctccat ctcccaaagt gctgggatga caggcgtgag ccacagctcc   1620

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ccactggcct gaatctacac tggaagccaa cttgctggca cccccgctcc ccaacccttc   1860

ttgcctgggt aggagaggct aaagatcacc ctaaatttac tcatctctct agtgctgcct   1920

cacattgggc ctcagcagct ccccagcacc aattcacagg tcacccctct cttcttgcac   1980

tgtccccaaa cttgctgtca attccgagat ctaatctccc cctacgctct gccaggaatt   2040

ctttcagacc tcactagcac aagcccggtt gctccttgtc aggagaattt gtagatcatt   2100

ctcacttcaa attcctgggg ctgatacttc tctcatcttg caccccaacc tctgtaaata   2160

gatttaccgc atttacggct gcattctgta agtgggcatg gtctcctaat ggaggagtgt   2220

tcattgtata ataagttatt cacctgagta tgcaataaag atgtggtggc cactctttca   2280

tggtggtggc agcaaaaaaa aaaaaaaaaa aaaaaa                             2316
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<210> SEQ ID NO 60
<211> LENGTH: 357
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens

See sequence alignment attached below.

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 1               5                  10                  15

Tyr Tyr Arg Leu Cys Asp Lys Ala Glu Ala Trp Gly Ile Val Leu Glu
            20                  25                  30

Thr Val Ala Thr Ala Gly Val Val Thr Ser Val Ala Phe Met Leu Thr
        35                  40                  45

Leu Pro Ile Leu Val Cys Lys Val Gln Asp Ser Asn Arg Arg Lys Met
    50                  55                  60

Leu Pro Thr Gln Phe Leu Phe Leu Leu Gly Val Leu Gly Ile Phe Gly
65                  70                  75                  80

Leu Thr Phe Ala Phe Ile Ile Gly Leu Asp Gly Ser Thr Gly Pro Thr
                85                  90                  95

Arg Phe Phe Leu Phe Gly Ile Leu Phe Ser Ile Cys Phe Ser Cys Leu
            100                 105                 110

Leu Ala His Ala Val Ser Leu Thr Lys Leu Val Arg Gly Arg Lys Pro
        115                 120                 125

Leu Ser Leu Leu Val Ile Leu Gly Leu Ala Val Gly Phe Ser Leu Val
    130                 135                 140

Gln Asp Val Ile Ala Ile Glu Tyr Ile Val Leu Thr Met Asn Arg Thr
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GenCore version 5.1.9

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SUMMARIES

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	35	113.2	4.6	47883	3	US-09-949-016-17213	Sequence 17213, A
	36	112.6	4.6	37792	3	US-09-949-016-12503	Sequence 12503, A
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c	40	112.4	4.6	288031	3	US-09-949-016-14864	Sequence 14864, A
c	41	112.2	4.6	601	3	US-09-949-016-88852	Sequence 88852, A
c	42	112.2	4.6	601	3	US-09-949-016-88853	Sequence 88853, A
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ALIGNMENTS

RESULT 1
US-09-949-016-572
; Sequence 572, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 572
; LENGTH: 2456
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-572

Query Match 100.0%; Score 2456; DB 3; Length 2456;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2456; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy        121 ACAACTGCTCAGAGTGCGAGGGCGGGATAGCTGTCCAAGGTCTCCCCCAGCACTGAGGAG 180
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Db        121 ACAACTGCTCAGAGTGCGAGGGCGGGATAGCTGTCCAAGGTCTCCCCCAGCACTGAGGAG 180

Qy        181 CTCGCCTGCTGCCCTCTTGCGCGCGGGAAGCAGCACCAAGTTCACGGCCAACGCCTTGGC 240
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Qy        241 ACTAGGGTCCAGAATGGCTACAACAGTCCCTGATGGTTGCCGCAATGGCCTGAAATCCAA 300
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Db        241 ACTAGGGTCCAGAATGGCTACAACAGTCCCTGATGGTTGCCGCAATGGCCTGAAATCCAA 300
Qy        301 GTACTACAGACTTTGTGATAAGGCTGAAGCTTGGGGCATCGTCCTAGAAACGGTGGCCAC 360
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Qy        361 AGCCGGGGTTGTGACCTCGGTGGCCTTCATGCTCACTCTCCCGATCCTCGTCTGCAAGGT 420
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Db        421 GCAGGACTCCAACAGGCGAAAAATGCTGCCTACTCAGTTTCTCTTCCTCCTGGGTGTGTT 480
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Db        481 GGGCATCTTTGGCCTCACCTTCGCCTTCATCATCGGACTGGACGGGAGCACAGGGCCCAC 540
Qy        541 ACGCTTCTTCCTCTTTGGGATCCTCTTTTCCATCTGCTTCTCCTGCCTGCTGGCTCATGC 600
Db        541 ACGCTTCTTCCTCTTTGGGATCCTCTTTTCCATCTGCTTCTCCTGCCTGCTGGCTCATGC 600
Qy        601 TGTCAGTCTGACCAAGCTCGTCCGGGGGAGGAAGCCCCTTTCCCTGTTGGTGATTCTGGG 660
Db        601 TGTCAGTCTGACCAAGCTCGTCCGGGGGAGGAAGCCCCTTTCCCTGTTGGTGATTCTGGG 660
Qy        661 TCTGGCCGTGGGCTTCAGCCTAGTCCAGGATGTTATCGCTATTGAATATATTGTCCTGAC 720
Db        661 TCTGGCCGTGGGCTTCAGCCTAGTCCAGGATGTTATCGCTATTGAATATATTGTCCTGAC 720
Qy        721 CATGAATAGGACCAACGTCAATGTCTTTTCTGAGCTTTCCGCTCCTCGTCGCAATGAAGA 780
Db        721 CATGAATAGGACCAACGTCAATGTCTTTTCTGAGCTTTCCGCTCCTCGTCGCAATGAAGA 780
Qy        781 CTTTGTCCTCCTGCTCACCTACGTCCTCTTCTTGATGGCGCTGACCTTCCTCATGTCCTC 840
Db        781 CTTTGTCCTCCTGCTCACCTACGTCCTCTTCTTGATGGCGCTGACCTTCCTCATGTCCTC 840
Qy        841 CTTCACCTTCTGTGGTTCCTTCACGGGCTGGAAGAGACATGGGGCCCACATCTACCTCAC 900
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Db        961 TGACCGCAGGTGGGATGACACCATCCTCAGCTCCGCCTTGGCTGCCAATGGCTGGGTGTT 1020
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Db       1021 CCTGTTGGCTTATGTTAGTCCCGAGTTTTGGCTGCTCACAAAGCAACGAAACCCCATGGA 1080
Qy       1081 TTATCCTGTTGAGGATGCTTTCTGTAAACCTCAACTCGTGAAGAAGAGCTATGGTGTGGA 1140
Db       1081 TTATCCTGTTGAGGATGCTTTCTGTAAACCTCAACTCGTGAAGAAGAGCTATGGTGTGGA 1140
Qy       1141 GAACAGAGCCTACTCTCAAGAGGAAATCACTCAAGGTTTTGAAGAGACAGGGGACACGCT 1200
Db       1141 GAACAGAGCCTACTCTCAAGAGGAAATCACTCAAGGTTTTGAAGAGACAGGGGACACGCT 1200
Qy       1201 CTATGCCCCCTATTCCACACATTTTCAGCTGCAGAACCAGCCTCCCCAAAAGGAATTCTC 1260
Db       1201 CTATGCCCCCTATTCCACACATTTTCAGCTGCAGAACCAGCCTCCCCAAAAGGAATTCTC 1260
Qy       1261 CATCCCACGGGCCCACGCTTGGCCGAGCCCTTACAAAGACTATGAAGTAAAGAAAGAGGG 1320
Db       1261 CATCCCACGGGCCCACGCTTGGCCGAGCCCTTACAAAGACTATGAAGTAAAGAAAGAGGG 1320
Qy       1321 CAGCTAACTCTGTCCTGAAGAGTGGGACAAATGCAGCCGGGCGGCAGATCTAGCGGGAGC 1380
Db       1321 CAGCTAACTCTGTCCTGAAGAGTGGGACAAATGCAGCCGGGCGGCAGATCTAGCGGGAGC 1380
Qy       1381 TCAAAGGGATGTGGGCGAAATCTTGAGTCTTCTGAGAAAACTGTACAAGACACTACGGGA 1440
Db       1381 TCAAAGGGATGTGGGCGAAATCTTGAGTCTTCTGAGAAAACTGTACAAGACACTACGGGA 1440
Qy       1441 ACAGTTTGCCTCCCTCCCAGCCTCAACCACAATTCTTCCATGCTGGGGCTGATGTGGGCT 1500
Db       1441 ACAGTTTGCCTCCCTCCCAGCCTCAACCACAATTCTTCCATGCTGGGGCTGATGTGGGCT 1500
Qy       1501 AGTAAGACTCCAGTTCTTAGAGGCGCTGTAGTATTTTTTTTTTTTTGTCTCATCCTTTGG 1560
Db       1501 AGTAAGACTCCAGTTCTTAGAGGCGCTGTAGTATTTTTTTTTTTTTGTCTCATCCTTTGG 1560
Qy       1561 ATACTTCTTTTAAGTGGGAGTCTCAGGCAACTCAAGTTTAGACCCTTACTCTTTTTGTTT 1620
Db       1561 ATACTTCTTTTAAGTGGGAGTCTCAGGCAACTCAAGTTTAGACCCTTACTCTTTTTGTTT 1620
Qy       1621 GTTTTTTGAAACAGGATCTTGCTCTGTCACCCAGGCTTGAGTGCAGTGGTGCGATCACAG 1680
Db       1621 GTTTTTTGAAACAGGATCTTGCTCTGTCACCCAGGCTTGAGTGCAGTGGTGCGATCACAG 1680
Qy       1681 CCCAGTGCAGCCTCGACCACCTGTGCTCAAGCAATCCTCCCATCTCCATCTCCCAAAGTG 1740
Db       1681 CCCAGTGCAGCCTCGACCACCTGTGCTCAAGCAATCCTCCCATCTCCATCTCCCAAAGTG 1740
Qy       1741 CTGGGATGACAGGCGTGAGCCACAGCTCCCAGCCTAGGCCCTTAATCTTGCTGTTATTTT 1800
Db       1741 CTGGGATGACAGGCGTGAGCCACAGCTCCCAGCCTAGGCCCTTAATCTTGCTGTTATTTT 1800
Qy       1801 CCATGGACTAAAGGTCTGGTCATCTGAGCTCACGCTGGCTCACACAGCTCTAGGGGCCTG 1860
Db       1801 CCATGGACTAAAGGTCTGGTCATCTGAGCTCACGCTGGCTCACACAGCTCTAGGGGCCTG 1860
Qy       1861 CTCCTCTAACTCACAGTGGGTTTTGTGAGGCTCTGTGGCCCAGAGCAGACCTGCATATCT 1920
Db       1861 CTCCTCTAACTCACAGTGGGTTTTGTGAGGCTCTGTGGCCCAGAGCAGACCTGCATATCT 1920
Qy       1921 GAGCAAAAATAGCAAAAGCCTCTCTCAGCCCACTGGCCTGAATCTACACTGGAAGCCAAC 1980
Db       1921 GAGCAAAAATAGCAAAAGCCTCTCTCAGCCCACTGGCCTGAATCTACACTGGAAGCCAAC 1980
Qy       1981 TTGCTGGCACCCCCGCTCCCCAACCCTTCTTGCCTGGGTAGGAGAGGCTAAAGATCACCC 2040
Db       1981 TTGCTGGCACCCCCGCTCCCCAACCCTTCTTGCCTGGGTAGGAGAGGCTAAAGATCACCC 2040
Qy       2041 TAAATTTACTCATCTCTCTAGTGCTGCCTCACATTGGGCCTCAGCAGCTCCCCAGCACCA 2100
Db       2041 TAAATTTACTCATCTCTCTAGTGCTGCCTCACATTGGGCCTCAGCAGCTCCCCAGCACCA 2100
Qy       2101 ATTCACAGGTCACCCCTCTCTTCTTGCACTGTCCCCAAACTTGCTGTCAATTCCGAGATC 2160
Db       2101 ATTCACAGGTCACCCCTCTCTTCTTGCACTGTCCCCAAACTTGCTGTCAATTCCGAGATC 2160
Qy       2161 TAATCTCCCCCTACGCTCTGCCAGGAATTCTTTCAGACCTCACTAGCACAAGCCCGGTTG 2220
Db       2161 TAATCTCCCCCTACGCTCTGCCAGGAATTCTTTCAGACCTCACTAGCACAAGCCCGGTTG 2220
Qy       2221 CTCCTTGTCAGGAGAATTTGTAGATCATTCTCACTTCAAATTCCTGGGGCTGATACTTCT 2280
Db       2221 CTCCTTGTCAGGAGAATTTGTAGATCATTCTCACTTCAAATTCCTGGGGCTGATACTTCT 2280
Qy       2281 CTCATCTTGCACCCCAACCTCTGTAAATAGATTTACCGCATTTACGGCTGCATTCTGTAA 2340
Db       2281 CTCATCTTGCACCCCAACCTCTGTAAATAGATTTACCGCATTTACGGCTGCATTCTGTAA 2340
Qy       2341 GTGGGCATGGTCTCCTAATGGAGGAGTGTTCATTGTATAATAAGTTATTCACCTGAGTAT 2400
Db       2341 GTGGGCATGGTCTCCTAATGGAGGAGTGTTCATTGTATAATAAGTTATTCACCTGAGTAT 2400
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RESULT 2
US-10-225-567A-454
; Sequence 454, Application US/10225567A
; Publication No. US20030113798A1
; GENERAL INFORMATION:
; APPLICANT: LifeSpan Biosciences
; APPLICANT: Brown, Joseph P.
; APPLICANT: Burmer, Glenna C.
; APPLICANT: Roush, Christine L.
; TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
; FILE REFERENCE: 1920-4-4
; CURRENT APPLICATION NUMBER: US/10/225,567A
; CURRENT FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 60/257,144
; PRIOR FILING DATE: 2000-12-19
; NUMBER OF SEQ ID NOS: 2292
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 454
;   LENGTH: 357
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-225-567A-454

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  Query Match             100.0%;  Score 1865;  DB 4;  Length 357;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-171;
  Matches  357;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Qy         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120
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Qy        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240
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Db        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240

Qy        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
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Db        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300

Qy        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
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RESULT 3
US-10-224-289-4
; Sequence 4, Application US/10224289
; Publication No. US20030207288A1
; GENERAL INFORMATION:
; APPLICANT: LEWIN, DAVID A.
; APPLICANT: STEWART, TIMOTHY A.
; TITLE OF INVENTION: GPCR-LIKE RETINOIC ACID-INDUCED GENE 1 PROTEIN AND
; TITLE OF INVENTION: NUCLEIC ACID
; FILE REFERENCE: 9800081-0085
; CURRENT APPLICATION NUMBER: US/10/224,289
; CURRENT FILING DATE: 2002-08-20
; PRIOR APPLICATION NUMBER: 60/313,940
; PRIOR FILING DATE: 2001-08-20
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
;   LENGTH: 357
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-224-289-4

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  Query Match             100.0%;  Score 1865;  DB 4;  Length 357;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-171;
  Matches  357;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180

Qy        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240
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Qy        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
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Db        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300

Qy        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
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RESULT 4
US-10-295-027-620
; Sequence 620, Application US/10295027
; Publication No. US20030232350A1
; GENERAL INFORMATION:
; APPLICANT: Afar, Daniel
; APPLICANT: Aziz, Natasha
; APPLICANT: Ginsberg, Wendy M.
; APPLICANT: Gish, Kurt C.
; APPLICANT: Glynne, Richard
; APPLICANT: Hevezi, Peter A.
; APPLICANT: Mack, David H.
; APPLICANT: Murray, Richard
; APPLICANT: Watson, Susan R.
; APPLICANT: Eos Biotechnology, Inc.
; TITLE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and
; TITLE OF INVENTION: Methods of Screening for Modulators of Cancer
; FILE REFERENCE: 018501-012500US
; CURRENT APPLICATION NUMBER: US/10/295,027
; CURRENT FILING DATE: 2002-11-13
; PRIOR APPLICATION NUMBER: US 09/663,733
; PRIOR FILING DATE: 2000-09-15
; PRIOR APPLICATION NUMBER: US 60/350,666
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: US 60/335,394
; PRIOR FILING DATE: 2001-11-15
; PRIOR APPLICATION NUMBER: US 60/332,464
; PRIOR FILING DATE: 2001-11-21
; PRIOR APPLICATION NUMBER: US 60/334,393
; PRIOR FILING DATE: 2001-11-29
; PRIOR APPLICATION NUMBER: US 60/340,376
; PRIOR FILING DATE: 2001-12-14
; PRIOR APPLICATION NUMBER: US 60/347,211
; PRIOR FILING DATE: 2002-01-08
; PRIOR APPLICATION NUMBER: US 60/347,349
; PRIOR FILING DATE: 2002-01-10
; PRIOR APPLICATION NUMBER: US 60/355,250
; PRIOR FILING DATE: 2002-02-08
; PRIOR APPLICATION NUMBER: US 60/356,714

GenCore version 5.1.9

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Gapop 10.0 , Gapext 1.0

Searched: 18892170 seqs, 6143817638 residues

Total number of hits satisfying chosen parameters: 37784340

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
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Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	2456	100.0	2456	6	US-10-225-567A-453	Sequence 453, App
2	2456	100.0	2456	7	US-10-269-909-63	Sequence 63, Appl
3	2456	100.0	2456	7	US-10-269-909-64	Sequence 64, Appl
4	2456	100.0	2456	7	US-10-295-027-619	Sequence 619, App
5	2456	100.0	2456	8	US-10-600-816-2	Sequence 2, Appli
6	2456	100.0	2456	9	US-10-775-920-10	Sequence 10, Appl
7	2456	100.0	2456	10	US-10-936-626-40	Sequence 40, Appl
8	2456	100.0	2456	10	US-10-938-061-40	Sequence 40, Appl
9	2456	100.0	2456	16	US-11-169-041-32	Sequence 32, Appl
10	2448	99.7	2456	8	US-10-600-816-18	Sequence 18, Appl
11	2443	99.5	4239	6	US-10-198-846-10424	Sequence 10424, A
12	2439.8	99.3	2446	9	US-10-775-920-11	Sequence 11, Appl
13	2302	93.7	2302	7	US-10-224-289-3	Sequence 3, Appli
14	2302	93.7	2302	8	US-10-240-425-405	Sequence 405, App
15	2302	93.7	2302	9	US-10-775-920-9	Sequence 9, Appli
16	2302	93.7	2302	10	US-10-510-507-2	Sequence 2, Appli
17	2286	93.1	2316	6	US-10-176-847-59	Sequence 59, Appl
18	2286	93.1	2316	15	US-11-080-991-59	Sequence 59, Appl
19	2274.8	92.6	2297	9	US-10-775-920-13	Sequence 13, Appl
20	2268.2	92.4	2305	9	US-10-775-920-12	Sequence 12, Appl
21	2260.4	92.0	2593	7	US-10-264-049-834	Sequence 834, App
22	1601.8	65.2	1619	7	US-10-224-289-5	Sequence 5, Appli
23	1601.8	65.2	1619	9	US-10-935-190-43	Sequence 43, Appl
24	1441.4	58.7	1460	10	US-10-936-626-64	Sequence 64, Appl
25	1441.4	58.7	1460	10	US-10-938-061-64	Sequence 64, Appl
26	1400	57.0	1400	13	US-11-060-756-2418	Sequence 2418, Ap
27	1400	57.0	1400	13	US-11-060-756-6690	Sequence 6690, Ap
28	1126	45.8	1212	3	US-09-866-050A-249	Sequence 249, App
29	1126	45.8	1212	6	US-10-152-661-249	Sequence 249, App
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31	1082.6	44.1	1114	5	US-09-978-360A-210	Sequence 210, App
32	1071	43.6	1071	9	US-10-712-615-134	Sequence 134, App
33	1067.8	43.5	1788	10	US-10-505-486-196	Sequence 196, App
34	1031.6	42.0	1228	7	US-10-313-542-223	Sequence 223, App
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c 37	702.4	28.6	774	6	US-10-106-698-2079	Sequence 2079, Ap
38	661.2	26.9	1934	7	US-10-224-289-1	Sequence 1, Appli
39	602	24.5	715	3	US-09-969-034-1270	Sequence 1270, Ap
c 40	540.4	22.0	620	3	US-09-969-034-2222	Sequence 2222, Ap
c 41	538.4	21.9	552	6	US-10-066-543-1811	Sequence 1811, Ap
42	497	20.2	497	6	US-10-066-543-1937	Sequence 1937, Ap
c 43	496.6	20.2	562	3	US-09-969-034-1808	Sequence 1808, Ap
44	477.2	19.4	519	6	US-10-052-283-396	Sequence 396, App
c 45	467	19.0	468	3	US-09-998-598-2451	Sequence 2451, Ap

ALIGNMENTS

RESULT 1
US-10-225-567A-453
; Sequence 453, Application US/10225567A
; Publication No. US20030113798A1
; GENERAL INFORMATION:
; APPLICANT: LifeSpan Biosciences
; APPLICANT: Brown, Joseph P.
; APPLICANT: Burmer, Glenna C.
; APPLICANT: Roush, Christine L.
; TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTOR
; FILE REFERENCE: 1920-4-4
; CURRENT APPLICATION NUMBER: US/10/225,567A
; CURRENT FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 60/257,144
; PRIOR FILING DATE: 2000-12-19
; NUMBER OF SEQ ID NOS: 2292
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 453
; LENGTH: 2456
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-225-567A-453

Query Match 100.0%; Score 2456; DB 6; Length 2456;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2456; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db          1 ATAACAGCATGAAGTGCCGTGGAACTGGAATAGGCGTGTCCTCTCCCTCGACCCTCCCCC 60

Qy         61 TCCTTGTCCCTCTGCTCACCCCTCGCTCGTTCCCTCCCTCCGGCGAGGGCCGCCTTTATA 120
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Db         61 TCCTTGTCCCTCTGCTCACCCCTCGCTCGTTCCCTCCCTCCGGCGAGGGCCGCCTTTATA 120

Qy        121 ACAACTGCTCAGAGTGCGAGGGCGGGATAGCTGTCCAAGGTCTCCCCCAGCACTGAGGAG 180
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Db        121 ACAACTGCTCAGAGTGCGAGGGCGGGATAGCTGTCCAAGGTCTCCCCCAGCACTGAGGAG 180

Qy        181 CTCGCCTGCTGCCCTCTTGCGCGCGGGAAGCAGCACCAAGTTCACGGCCAACGCCTTGGC 240
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Db        181 CTCGCCTGCTGCCCTCTTGCGCGCGGGAAGCAGCACCAAGTTCACGGCCAACGCCTTGGC 240
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Qy        301 GTACTACAGACTTTGTGATAAGGCTGAAGCTTGGGGCATCGTCCTAGAAACGGTGGCCAC 360
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Qy        481 GGGCATCTTTGGCCTCACCTTCGCCTTCATCATCGGACTGGACGGGAGCACAGGGCCCAC 540
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Qy        601 TGTCAGTCTGACCAAGCTCGTCCGGGGGAGGAAGCCCCTTTCCCTGTTGGTGATTCTGGG 660
Db        601 TGTCAGTCTGACCAAGCTCGTCCGGGGGAGGAAGCCCCTTTCCCTGTTGGTGATTCTGGG 660
Qy        661 TCTGGCCGTGGGCTTCAGCCTAGTCCAGGATGTTATCGCTATTGAATATATTGTCCTGAC 720
Db        661 TCTGGCCGTGGGCTTCAGCCTAGTCCAGGATGTTATCGCTATTGAATATATTGTCCTGAC 720
Qy        721 CATGAATAGGACCAACGTCAATGTCTTTTCTGAGCTTTCCGCTCCTCGTCGCAATGAAGA 780
Db        721 CATGAATAGGACCAACGTCAATGTCTTTTCTGAGCTTTCCGCTCCTCGTCGCAATGAAGA 780
Qy        781 CTTTGTCCTCCTGCTCACCTACGTCCTCTTCTTGATGGCGCTGACCTTCCTCATGTCCTC 840
Db        781 CTTTGTCCTCCTGCTCACCTACGTCCTCTTCTTGATGGCGCTGACCTTCCTCATGTCCTC 840
Qy        841 CTTCACCTTCTGTGGTTCCTTCACGGGCTGGAAGAGACATGGGGCCCACATCTACCTCAC 900
Db        841 CTTCACCTTCTGTGGTTCCTTCACGGGCTGGAAGAGACATGGGGCCCACATCTACCTCAC 900
Qy        901 GATGCTCCTCTCCATTGCCATCTGGGTGGCCTGGATCACCCTGCTCATGCTTCCTGACTT 960
Db        901 GATGCTCCTCTCCATTGCCATCTGGGTGGCCTGGATCACCCTGCTCATGCTTCCTGACTT 960
Qy        961 TGACCGCAGGTGGGATGACACCATCCTCAGCTCCGCCTTGGCTGCCAATGGCTGGGTGTT 1020
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Db       1141 GAACAGAGCCTACTCTCAAGAGGAAATCACTCAAGGTTTTGAAGAGACAGGGGACACGCT 1200
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Db       1321 CAGCTAACTCTGTCCTGAAGAGTGGGACAAATGCAGCCGGGCGGCAGATCTAGCGGGAGC 1380
Qy       1381 TCAAAGGGATGTGGGCGAAATCTTGAGTCTTCTGAGAAAACTGTACAAGACACTACGGGA 1440
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Qy       1501 AGTAAGACTCCAGTTCTTAGAGGCGCTGTAGTATTTTTTTTTTTTTGTCTCATCCTTTGG 1560
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Qy       1621 GTTTTTTGAAACAGGATCTTGCTCTGTCACCCAGGCTTGAGTGCAGTGGTGCGATCACAG 1680
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Qy       1681 CCCAGTGCAGCCTCGACCACCTGTGCTCAAGCAATCCTCCCATCTCCATCTCCCAAAGTG 1740
Db       1681 CCCAGTGCAGCCTCGACCACCTGTGCTCAAGCAATCCTCCCATCTCCATCTCCCAAAGTG 1740
Qy       1741 CTGGGATGACAGGCGTGAGCCACAGCTCCCAGCCTAGGCCCTTAATCTTGCTGTTATTTT 1800
Db       1741 CTGGGATGACAGGCGTGAGCCACAGCTCCCAGCCTAGGCCCTTAATCTTGCTGTTATTTT 1800
Qy       1801 CCATGGACTAAAGGTCTGGTCATCTGAGCTCACGCTGGCTCACACAGCTCTAGGGGCCTG 1860
Db       1801 CCATGGACTAAAGGTCTGGTCATCTGAGCTCACGCTGGCTCACACAGCTCTAGGGGCCTG 1860
Qy       1861 CTCCTCTAACTCACAGTGGGTTTTGTGAGGCTCTGTGGCCCAGAGCAGACCTGCATATCT 1920
Db       1861 CTCCTCTAACTCACAGTGGGTTTTGTGAGGCTCTGTGGCCCAGAGCAGACCTGCATATCT 1920
Qy       1921 GAGCAAAAATAGCAAAAGCCTCTCTCAGCCCACTGGCCTGAATCTACACTGGAAGCCAAC 1980
Db       1921 GAGCAAAAATAGCAAAAGCCTCTCTCAGCCCACTGGCCTGAATCTACACTGGAAGCCAAC 1980
Qy       1981 TTGCTGGCACCCCCGCTCCCCAACCCTTCTTGCCTGGGTAGGAGAGGCTAAAGATCACCC 2040
Db       1981 TTGCTGGCACCCCCGCTCCCCAACCCTTCTTGCCTGGGTAGGAGAGGCTAAAGATCACCC 2040
Qy       2041 TAAATTTACTCATCTCTCTAGTGCTGCCTCACATTGGGCCTCAGCAGCTCCCCAGCACCA 2100
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Qy       2101 ATTCACAGGTCACCCCTCTCTTCTTGCACTGTCCCCAAACTTGCTGTCAATTCCGAGATC 2160
Db       2101 ATTCACAGGTCACCCCTCTCTTCTTGCACTGTCCCCAAACTTGCTGTCAATTCCGAGATC 2160
Qy       2161 TAATCTCCCCCTACGCTCTGCCAGGAATTCTTTCAGACCTCACTAGCACAAGCCCGGTTG 2220
Db       2161 TAATCTCCCCCTACGCTCTGCCAGGAATTCTTTCAGACCTCACTAGCACAAGCCCGGTTG 2220
Qy       2221 CTCCTTGTCAGGAGAATTTGTAGATCATTCTCACTTCAAATTCCTGGGGCTGATACTTCT 2280
Db       2221 CTCCTTGTCAGGAGAATTTGTAGATCATTCTCACTTCAAATTCCTGGGGCTGATACTTCT 2280
Qy       2281 CTCATCTTGCACCCCAACCTCTGTAAATAGATTTACCGCATTTACGGCTGCATTCTGTAA 2340
Db       2281 CTCATCTTGCACCCCAACCTCTGTAAATAGATTTACCGCATTTACGGCTGCATTCTGTAA 2340
Qy       2341 GTGGGCATGGTCTCCTAATGGAGGAGTGTTCATTGTATAATAAGTTATTCACCTGAGTAT 2400
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RESULT 2
US-10-269-909-63
; Sequence 63, Application US/10269909
; Publication No. US20030180747A1
; GENERAL INFORMATION:
; APPLICANT: HRUBAN, RALPH H.
; APPLICANT: ARGANI, PEDRAM
; APPLICANT: IACOBUZIO-DONAHUE, CHRISTINE
; APPLICANT: MAITRA, ANIRBAN
; TITLE OF INVENTION: PANCREATIC CANCER DIAGNOSIS AND THERAPIES
; FILE REFERENCE: 58303(71699)
; CURRENT APPLICATION NUMBER: US/10/269,909
; CURRENT FILING DATE: 2003-10-11
; PRIOR APPLICATION NUMBER: 60/328,609
; PRIOR FILING DATE: 2001-10-11
; PRIOR APPLICATION NUMBER: 60/332,754
; PRIOR FILING DATE: 2001-11-19
; NUMBER OF SEQ ID NOS: 87
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 63
; LENGTH: 2456
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-269-909-63

Query Match 100.0%; Score 2456; DB 7; Length 2456;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2456; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db          1 ATAACAGCATGAAGTGCCGTGGAACTGGAATAGGCGTGTCCTCTCCCTCGACCCTCCCCC 60

Qy         61 TCCTTGTCCCTCTGCTCACCCCTCGCTCGTTCCCTCCCTCCGGCGAGGGCCGCCTTTATA 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TCCTTGTCCCTCTGCTCACCCCTCGCTCGTTCCCTCCCTCCGGCGAGGGCCGCCTTTATA 120

Qy        121 ACAACTGCTCAGAGTGCGAGGGCGGGATAGCTGTCCAAGGTCTCCCCCAGCACTGAGGAG 180
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Db        121 ACAACTGCTCAGAGTGCGAGGGCGGGATAGCTGTCCAAGGTCTCCCCCAGCACTGAGGAG 180

Qy        181 CTCGCCTGCTGCCCTCTTGCGCGCGGGAAGCAGCACCAAGTTCACGGCCAACGCCTTGGC 240
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Db        181 CTCGCCTGCTGCCCTCTTGCGCGCGGGAAGCAGCACCAAGTTCACGGCCAACGCCTTGGC 240

Qy        241 ACTAGGGTCCAGAATGGCTACAACAGTCCCTGATGGTTGCCGCAATGGCCTGAAATCCAA 300
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Qy        301 GTACTACAGACTTTGTGATAAGGCTGAAGCTTGGGGCATCGTCCTAGAAACGGTGGCCAC 360
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Db        361 AGCCGGGGTTGTGACCTCGGTGGCCTTCATGCTCACTCTCCCGATCCTCGTCTGCAAGGT 420

Qy        421 GCAGGACTCCAACAGGCGAAAAATGCTGCCTACTCAGTTTCTCTTCCTCCTGGGTGTGTT 480
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Db        541 ACGCTTCTTCCTCTTTGGGATCCTCTTTTCCATCTGCTTCTCCTGCCTGCTGGCTCATGC 600

Qy        601 TGTCAGTCTGACCAAGCTCGTCCGGGGGAGGAAGCCCCTTTCCCTGTTGGTGATTCTGGG 660
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Qy        661 TCTGGCCGTGGGCTTCAGCCTAGTCCAGGATGTTATCGCTATTGAATATATTGTCCTGAC 720
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Db        661 TCTGGCCGTGGGCTTCAGCCTAGTCCAGGATGTTATCGCTATTGAATATATTGTCCTGAC 720

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Db        721 CATGAATAGGACCAACGTCAATGTCTTTTCTGAGCTTTCCGCTCCTCGTCGCAATGAAGA 780

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Db        781 CTTTGTCCTCCTGCTCACCTACGTCCTCTTCTTGATGGCGCTGACCTTCCTCATGTCCTC 840

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Qy        901 GATGCTCCTCTCCATTGCCATCTGGGTGGCCTGGATCACCCTGCTCATGCTTCCTGACTT 960
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Qy        961 TGACCGCAGGTGGGATGACACCATCCTCAGCTCCGCCTTGGCTGCCAATGGCTGGGTGTT 1020
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Db        961 TGACCGCAGGTGGGATGACACCATCCTCAGCTCCGCCTTGGCTGCCAATGGCTGGGTGTT 1020

Qy       1021 CCTGTTGGCTTATGTTAGTCCCGAGTTTTGGCTGCTCACAAAGCAACGAAACCCCATGGA 1080
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1021 CCTGTTGGCTTATGTTAGTCCCGAGTTTTGGCTGCTCACAAAGCAACGAAACCCCATGGA 1080

Qy       1081 TTATCCTGTTGAGGATGCTTTCTGTAAACCTCAACTCGTGAAGAAGAGCTATGGTGTGGA 1140
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Qy       1381 TCAAAGGGATGTGGGCGAAATCTTGAGTCTTCTGAGAAAACTGTACAAGACACTACGGGA 1440
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Qy       1501 AGTAAGACTCCAGTTCTTAGAGGCGCTGTAGTATTTTTTTTTTTTTGTCTCATCCTTTGG 1560
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Db       1501 AGTAAGACTCCAGTTCTTAGAGGCGCTGTAGTATTTTTTTTTTTTTGTCTCATCCTTTGG 1560

Qy       1561 ATACTTCTTTTAAGTGGGAGTCTCAGGCAACTCAAGTTTAGACCCTTACTCTTTTTGTTT 1620
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Db       1561 ATACTTCTTTTAAGTGGGAGTCTCAGGCAACTCAAGTTTAGACCCTTACTCTTTTTGTTT 1620

Qy       1621 GTTTTTTGAAACAGGATCTTGCTCTGTCACCCAGGCTTGAGTGCAGTGGTGCGATCACAG 1680
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1621 GTTTTTTGAAACAGGATCTTGCTCTGTCACCCAGGCTTGAGTGCAGTGGTGCGATCACAG 1680
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GenCore version 5.1.9

OM protein - protein search, using sw model

Run on: June 8, 2006, 10:32:39 ; Search time 50 Seconds
(without alignments)
624.969 Million cell updates/sec

Title: US-10-600-816-3
Perfect score: 1865
Sequence: 1 MATTVPDGCRNGLKSKYYRL.....PRAHAWPSPYKDYEVKKEGS 357

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 650591 seqs, 87530628 residues

Total number of hits satisfying chosen parameters: 650591

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: /EMC_Celerra_SIDS3/ptodata/2/iaa/6_COMB.pep:*
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7: /EMC_Celerra_SIDS3/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1865	100.0	357	2	US-09-949-016-6443	Sequence 6443, Ap
2	1865	100.0	390	2	US-09-949-016-9484	Sequence 9484, Ap
3	1782	95.5	347	2	US-09-188-930-326	Sequence 326, App
4	1782	95.5	347	2	US-09-312-283C-326	Sequence 326, App
5	350	18.8	68	2	US-09-188-930-123	Sequence 123, App
6	350	18.8	68	2	US-09-312-283C-123	Sequence 123, App
7	157.5	8.4	256	2	US-09-964-956-85	Sequence 85, Appl
8	146.5	7.9	879	2	US-09-964-956-53	Sequence 53, Appl
9	146.5	7.9	879	2	US-09-964-956-54	Sequence 54, Appl
10	145.5	7.8	879	2	US-09-964-956-17	Sequence 17, Appl
11	140.5	7.5	879	2	US-09-964-956-52	Sequence 52, Appl
12	139.5	7.5	879	1	US-08-072-574-6	Sequence 6, Appli
13	139.5	7.5	879	1	US-08-486-270-6	Sequence 6, Appli
14	139.5	7.5	879	2	US-08-367-264-6	Sequence 6, Appli
15	139.5	7.5	879	2	US-08-794-158-2	Sequence 2, Appli
16	139.5	7.5	879	2	US-09-153-757-6	Sequence 6, Appli
17	139.5	7.5	879	2	US-09-459-715-6	Sequence 6, Appli
18	136	7.3	200	2	US-09-205-258-349	Sequence 349, App
19	136	7.3	200	2	US-10-004-860-349	Sequence 349, App
20	131.5	7.1	872	2	US-08-337-797A-2	Sequence 2, Appli
21	131.5	7.1	872	2	US-09-258-523-2	Sequence 2, Appli
22	131	7.0	877	2	US-09-619-353-2	Sequence 2, Appli
23	124	6.6	863	2	US-09-619-353-14	Sequence 14, Appl
24	119.5	6.4	1078	2	US-10-125-772-28	Sequence 28, Appl
25	119.5	6.4	1078	2	US-10-125-778-28	Sequence 28, Appl
26	119.5	6.4	1078	2	US-10-125-792-28	Sequence 28, Appl
27	116.5	6.2	856	2	US-09-619-353-8	Sequence 8, Appli
28	116	6.2	1085	1	US-08-485-588-5	Sequence 5, Appli
29	116	6.2	1085	1	US-08-484-565-5	Sequence 5, Appli
30	116	6.2	1085	1	US-08-480-751-5	Sequence 5, Appli
31	116	6.2	1085	1	US-08-943-986-5	Sequence 5, Appli
32	116	6.2	1085	2	US-08-353-784-5	Sequence 5, Appli
33	116	6.2	1085	2	US-08-484-719B-5	Sequence 5, Appli
34	116	6.2	1085	2	US-08-484-159-5	Sequence 5, Appli
35	115.5	6.2	835	2	US-09-619-353-7	Sequence 7, Appli
36	115.5	6.2	1027	2	US-09-162-021B-2	Sequence 2, Appli
37	115.5	6.2	1027	2	US-10-268-051-8	Sequence 8, Appli
38	115.5	6.2	1027	2	US-10-125-772-2	Sequence 2, Appli
39	115.5	6.2	1027	2	US-10-125-778-2	Sequence 2, Appli
40	115.5	6.2	1027	2	US-10-125-792-2	Sequence 2, Appli
41	113.5	6.1	854	2	US-09-619-353-10	Sequence 10, Appl
42	113	6.1	388	2	US-10-125-772-6	Sequence 6, Appli
43	113	6.1	388	2	US-10-125-778-6	Sequence 6, Appli
44	113	6.1	388	2	US-10-125-792-6	Sequence 6, Appli
45	113	6.1	850	2	US-10-125-772-12	Sequence 12, Appl

ALIGNMENTS

RESULT 1
US-09-949-016-6443
; Sequence 6443, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6443
; LENGTH: 357
; TYPE: PRT
; ORGANISM: Human
US-09-949-016-6443

Query Match 100.0%; Score 1865; DB 2; Length 357;
Best Local Similarity 100.0%; Pred. No. 3.2e-194;
Matches 357; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60
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Db          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60

Qy         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120
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Db         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120

Qy        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180
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Db        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180

Qy        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240
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Db        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240

Qy        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
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```
Qy        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
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Db        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357


RESULT 2
US-09-949-016-9484
; Sequence 9484, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
;  APPLICANT: VENTER, J. Craig et al.
;  TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
;  TITLE OF INVENTION:  WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
;  FILE REFERENCE: CL001307
;  CURRENT APPLICATION NUMBER: US/09/949,016
;  CURRENT FILING DATE:  2000-04-14
;  PRIOR APPLICATION NUMBER: 60/241,755
;  PRIOR FILING DATE: 2000-10-20
;  PRIOR APPLICATION NUMBER: 60/237,768
;  PRIOR FILING DATE: 2000-10-03
;  PRIOR APPLICATION NUMBER: 60/231,498
;  PRIOR FILING DATE: 2000-09-08
;  NUMBER OF SEQ ID NOS: 207012
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9484
;   LENGTH: 390
;   TYPE: PRT
;   ORGANISM: Human
US-09-949-016-9484

  Query Match           100.0%;  Score 1865;  DB 2;  Length 390;
  Best Local Similarity  100.0%;  Pred. No. 3.7e-194;
  Matches  357;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         34 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 93

Qy         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         94 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 153

Qy        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        154 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 213

Qy        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        214 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 273

Qy        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        274 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 333

Qy        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        334 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 390


RESULT 3
US-09-188-930-326
; Sequence 326, Application US/09188930A
; Patent No. 6150502
; GENERAL INFORMATION:
;  APPLICANT: Watson, James D.
;  APPLICANT: Strachan, Lorna
;  APPLICANT: Sleeman, Matthew
;  APPLICANT: Onrust, Rene
;  APPLICANT: Murison, James Greg
;  TITLE OF INVENTION: Compositions Isolated From Skin Cells
;  TITLE OF INVENTION: and Methods For Their Use
;  FILE REFERENCE: 11000.1011c1
;  CURRENT APPLICATION NUMBER: US/09/188,930A
;  CURRENT FILING DATE: 1998-11-09
;  NUMBER OF SEQ ID NOS: 348
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 326
;   LENGTH: 347
;   TYPE: PRT
;   ORGANISM: Human
US-09-188-930-326

  Query Match           95.5%;  Score 1782;  DB 2;  Length 347;
  Best Local Similarity  99.1%;  Pred. No. 3.3e-185;
  Matches  341;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         14 KSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSNRRKMLPTQFLFLL 73
              : :|||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          4 RPRYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSNRRKMLPTQFLFLL 63

Qy         74 GVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLTKLVRGRKPLSLLV 133
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         64 GVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLTKLVRGRKPLSLLV 123

Qy        134 ILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLLLTYVLFLMALTFL 193
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        124 ILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLLLTYVLFLMALTFL 183

Qy        194 MSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRWDDTILSSALAANG 253
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        184 MSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRWDDTILSSALAANG 243

Qy        254 WVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAYSQEEITQGFEETG 313
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        244 WVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAYSQEEITQGFEETG 303

Qy        314 DTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
              |||||||||||||||||||||||||||||||||||||||||||||
Db        304 DTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 347


RESULT 4
US-09-312-283C-326
; Sequence 326, Application US/09312283C
; Patent No. 6573095
; GENERAL INFORMATION:
;  APPLICANT: Watson, James D.
;  APPLICANT:  Strachan, Lorna
;  APPLICANT:  Sleeman, Matthew
;  APPLICANT:  Onrust, Rene
;  APPLICANT:  Murison, James G.
;  APPLICANT:  Kumble, Krishanand D.
;  TITLE OF INVENTION: Compositions Isolated from Skin Cells
;  TITLE OF INVENTION:  and Methods for Their Use
;  FILE REFERENCE: 11000.1011c2
;  CURRENT APPLICATION NUMBER: US/09/312,283C
;  CURRENT FILING DATE:  1999-05-14
;  NUMBER OF SEQ ID NOS: 425
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 326
;   LENGTH: 347
;   TYPE: PRT
;   ORGANISM: Mouse
US-09-312-283C-326

  Query Match           95.5%;  Score 1782;  DB 2;  Length 347;
  Best Local Similarity  99.1%;  Pred. No. 3.3e-185;
  Matches  341;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         14 KSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSNRRKMLPTQFLFLL 73
              : :|||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          4 RPRYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSNRRKMLPTQFLFLL 63

Qy         74 GVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLTKLVRGRKPLSLLV 133
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         64 GVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLTKLVRGRKPLSLLV 123
```

XX
DE Human cancer related protein SEQ ID NO:226.
XX
KW Human; cancer; diagnosis; screening; modulator; leukaemia; ischaemia;
KW heart disease; atherosclerosis; endometriosis.
XX
OS Homo sapiens.
XX
PN WO2003025138-A2.
XX
PD 27-MAR-2003.
XX
PF 17-SEP-2002; 2002WO-US029560.
XX
PR 17-SEP-2001; 2001US-0323469P.
PR 20-SEP-2001; 2001US-0323887P.
PR 13-NOV-2001; 2001US-0350666P.
PR 08-FEB-2002; 2002US-0355145P.
PR 08-FEB-2002; 2002US-0355257P.
PR 12-APR-2002; 2002US-0372246P.
XX
PA (EOSB-) EOS BIOTECHNOLOGY INC.
XX
PI Afar D, Aziz N, Gish KC, Hevezi PA, Mack DH, Wilson KE;
PI Zlotnik A;
XX
DR WPI; 2003-354600/33.
DR N-PSDB; ACC72695.
XX
PT New genes that are up-regulated or down-regulated in cancers, useful as
PT markers for diagnosing e.g. cancer, ischemia or heart diseases, or as
PT therapeutic targets for screening drugs for treating these diseases.
XX
PS Claim 12; Page 740; 767pp; English.
XX
CC The present invention describes an isolated nucleic acid molecule, which
CC comprises the sequence of any of the genes that are up-regulated or down-
CC regulated in specific cancers (e.g. about 1031 genes up-regulated in
CC acute lymphocytic leukemia). ACC72641 to ACC72860 represent cancer
CC related gene nucleotide sequences which encode the proteins given in
CC ABR58521 to ABR58709. Also described: (1) determining the presence or
CC absence of a pathological cell in a patient; (2) an expression vector
CC comprising a nucleic acid molecule described above; (3) a host cell
CC comprising the vector; (4) an isolated polypeptide, which is encoded by
CC the nucleic acid; (5) an antibody that specifically binds the polypeptide
CC of (4); (6) specifically targeting a compound to a pathological cell in a
CC patient by administering to the patient the antibody above; and (7) a
CC drug screening assay. The nucleic acid is useful as diagnostic markers or
CC therapeutic targets. In particular, the nucleic acid is useful for
CC diagnosing a pathology, e.g. cancer (e.g. cancer of the bone marrow,
CC bladder, brain, breast, cervix, colon/rectum, kidney, lung, ovary,
CC pancreas, prostate, skin and uterus), wounds, ischaemia, heart diseases,
CC atherosclerosis and endometriosis. The nucleic acid is also useful in
CC drug screening, particularly for identifying agents for treating these
CC pathologies
XX
SQ Sequence 357 AA;

Query Match 100.0%; Score 1865; DB 6; Length 357;
Best Local Similarity 100.0%; Pred. No. 2.7e-203;
Matches 357; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60

Qy         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120

Qy        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180
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Db        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180

Qy        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240
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Db        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240

Qy        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
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Db        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300

Qy        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
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Db        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
```

RESULT 4
ABJ37054
ID ABJ37054 standard; protein; 357 AA.
XX
AC ABJ37054;
XX
DT 01-MAY-2003 (first entry)
XX
DE Human breast cancer / ovarian cancer related protein #30.
XX
KW Human; cytostatic; breast cancer; ovarian cancer.
XX
OS Homo sapiens.
XX
PN WO2003000012-A2. i.e., US 2003/0068636 A1, Apr. 10, 2003
XX
PD 03-JAN-2003.
XX
PF 21-JUN-2002; 2002WO-US019773.
XX
PR 21-JUN-2001; 2001US-0300159P.
PR 27-JUN-2001; 2001US-0301351P.
XX
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Veiby OP;
XX
DR WPI; 2003-267848/26.
DR N-PSDB; ABT31923.
XX
PT Determining the presence of breast cancer in an individual, involves
PT using specific polynucleotide markers.
XX
PS Disclosure; Page 163-164; 233pp; English.
XX
CC The invention comprises a method for assessing whether a patient is
CC afflicted with breast cancer or ovarian cancer. The method involves the
CC use of specific DNA markers. The method of the invention is useful in the
CC detection and treatment of ovarian and breast cancer. Amino acid
CC sequences ABJ37025 - ABJ37080 represent human breast/ovarian cancer-
CC related proteins
XX
SQ Sequence 357 AA;

Query Match 100.0%; Score 1865; DB 6; Length 357;
Best Local Similarity 100.0%; Pred. No. 2.7e-203;
Matches 357; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60

Qy         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120
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Db         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120

Qy        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180
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Db        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180
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Qy        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240
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Db        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240

Qy        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
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Db        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300

Qy        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
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Db        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
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RESULT 5
ABR42649
ID   ABR42649 standard; protein; 357 AA.
XX
AC   ABR42649;
XX
DT   26-AUG-2003  (first entry)
XX
DE   Human GPCR-like retinoic acid-induced gene 1 protein.
XX
KW   Human; retinoic acid-induced gene 1; RAIG1; feeding; fasting; GPCR;
KW   receptor; G-protein coupled receptor; anorectic; antidiabetic;
KW   antidepressant; immunomodulator; transgenic; gene therapy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   4. .8
FT                   /note= "phosphorylated by casein kinase II"
FT   Modified-site   8. .14
FT                   /note= "N-myristoylated"
FT   Modified-site   38. .43
FT                   /note= "N-myristoylated"
FT   Modified-site   59. .61
FT                   /note= "phosphorylated by protein kinase C"
FT   Modified-site   80. .86
FT                   /note= "N-myristoylated"
FT   Modified-site   88. .93
FT                   /note= "N-myristoylated"
FT   Modified-site   102. .107
FT                   /note= "N-myristoylated"
FT   Modified-site   124. .127
FT                   /note= "Amidated"
FT   Modified-site   136. .142
FT                   /note= "N-myristoylated"
FT   Modified-site   158. .161
FT                   /note= "N-glycosylated"
FT   Modified-site   201. .206
FT                   /note= "N-myristoylated"
FT   Modified-site   301. .304
FT                   /note= "phosphorylated by casein kinase II"
XX
PN   WO2003016553-A2.
XX
PD   27-FEB-2003.
XX
PF   20-AUG-2002; 2002WO-US026510.
XX
PR   20-AUG-2001; 2001US-0313940P.
XX
PA   (GETH ) GENENTECH INC.
PA   (CURA-) CURAGEN CORP.
XX
PI   Lewin DA,  Stewart TA;
XX
DR   WPI; 2003-278580/27.
DR   N-PSDB; ACC58386.
XX
PT   New G-protein coupled receptor-like retinoic acid induced gene 1 (GPCR-
PT   like RAIG1) polypeptide and gene, useful for diagnosing or treating
PT   metabolic disorders, e.g. obesity, anorexia, cachexia or diabetes.
XX
PS   Disclosure; Page 19-20; 150pp; English.
XX
CC   The present sequence is that of human G-protein coupled receptor-like
CC   retinoic acid induced gene 1 (GPCR-like RAIG1) protein. This is the human
CC   homologue of murine GPCR-like RAIG1 (see ABR42648). The murine GPCR-like
CC   RAIG1 gene was shown to be differentially regulated during fasting-
CC   feeding cycles, with moderate induction early in fasting, down-regulation
CC   with extended fasting and 4-fold up-regulation with feeding in recovery
CC   from fasting. The differentially expressed gene, its mRNA, and the
CC   encoded protein, can each be manipulated to detect and treat metabolic
CC   disorders associated with up- or down-regulation of GPCR-like RAIG1
CC   activity, such as obesity, anorexia, cachexia or diabetes
XX
SQ   Sequence 357 AA;

  Query Match            100.0%;  Score 1865;  DB 6;  Length 357;
  Best Local Similarity  100.0%;  Pred. No. 2.7e-203;
  Matches  357;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MATTVPDGCRNGLKSKYYRLCDKAEAWGIVLETVATAGVVTSVAFMLTLPILVCKVQDSN 60

Qy         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 RRKMLPTQFLFLLGVLGIFGLTFAFIIGLDGSTGPTRFFLFGILFSICFSCLLAHAVSLT 120

Qy        121 KLVRGRKPLSLLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 KLVRGRKPLSDLVILGLAVGFSLVQDVIAIEYIVLTMNRTNVNVFSELSAPRRNEDFVLL 180

Qy        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 LTYVLFLMALTFLMSSFTFCGSFTGWKRHGAHIYLTMLLSIAIWVAWITLLMLPDFDRRW 240

Qy        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 DDTILSSALAANGWVFLLAYVSPEFWLLTKQRNPMDYPVEDAFCKPQLVKKSYGVENRAY 300

Qy        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 SQEEITQGFEETGDTLYAPYSTHFQLQNQPPQKEFSIPRAHAWPSPYKDYEVKKEGS 357
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RESULT 6
ABP81984
ID   ABP81984 standard; protein; 357 AA.
XX
AC   ABP81984;
XX
DT   04-MAR-2003  (first entry)
XX
DE   Human G protein-coupled receptor RAIG1 protein SEQ ID NO:454.
XX
KW   G protein-coupled receptor; GPCR; antigenic peptide; gene therapy;
KW   G protein-coupled receptor modulator; antibody; immune-related disease;
KW   growth-related disease; cell regeneration-related disease; AIDS; cancer;
KW   immunological-related cell proliferative disease; autoimmune disease;
KW   Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy;
KW   osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes;
KW   graft versus host disease; Parkinson's disease; multiple sclerosis; pain;
KW   psoriasis; anxiety; depression; schizophrenia; dementia; memory loss;
KW   mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea;
KW   hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
KW   ulcer.
XX
OS   Homo sapiens.
XX
PN   WO200261087-A2.
XX
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